NEW TACHINIDAE FROM NORTH AMERICA.

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Following are the descriptions of one new genus and five new species of Tachinidae taken in the United States, with several notes upon species belonging to this family heretofore described.

Hypochaeta eudryae, new species.

Length 5 to 7 mm.; black, bronzy gray pollinose species. Front in each sex distinctly wider than either eye, frontal vitta varying from faintly yellowish to golden gray pollinose, about three times as wide as sides of front. Ocellar bristles reclinate, frontal bristles descending nearly to the base of the third antennal joint, the sides of the front bearing a few scattered bristly black hairs outside of each frontal row. Eyes hairy. First two antennal joints yellowish, the third joint from four to five times as long as the second. Arista thickened on the basal fourth to one-third, the penultimate joint as broad as long. Sides of face about one-fifth as wide as the facial depression, bristles on the facial ridges ascending three-fifths of the distance from the vibrissae to the base of the antennae. Vibrissae inserted on a level with the front edge of the oral margin, palpi and tip of probosis yellow.

Dorsum of the thorax bronzy gray pollinose, the vittae indistinct. Three dorso-central and two sternopleural macrochaetae. Scutellum bearing a discal pair of macrochaetae, three pairs of marginals and a longer cruciate apical pair. Tibiate yellowish, the middle tibiae on the outer side bearing two or more strong bristles near the middle.

Hairs of the abdomen depressed, the second segment bearing a pair of median discal and marginal macrochaetae, the third segment a discal pair and a marginal row and the fourth a discal and marginal row.

Wings hyaline, the apical cell ending but little before the extreme wing tip, the first longitudinal vein bristly almost to the tip, the third vein bearing two or three bristles at its base. Calypteres whitish.

Described from one male and one female taken at Oswego, New York, June 11, 1897, one female from the White Mountains (Morrison) and one female (Holotype) reared from Eudryas grata, April 12, 1911, from a larva taken at Newton, Mass. All of the material placed in the collection of the U. S. N. M. from which it was kindly loaned to me by Mr. Frederick Knab, with the exception of the holotype which was reared at the Gypsy Moth Laboratory.

Holotype: Cat. No. 20175 U. S. N. M.

Hypochaeta townsendi, new species.

Differs from *II. endryae* as follows; Length 6 to 7 mm. Abdomen coxae, femora and tibiae reddish yellow, first two joints of the antennae, palpi

and tip of probosis yellow. Front nearly as wide as either eye, outside of the frontal row, a row of weaker bristles, the three uppermost simulating orbital bristles. Frontal vitta, sides of front and the parafacials gray pollinose, faintly tinged with yellow, as viewed from above. Thorax and scutellum black, bronzy gray pollinose, thoracic vittae indistinct. Median abdominal vitta blackish, middle tibiae on the outer side bearing a single bristle near the middle. Apical cell ending in the costa close to the extreme wing tip.

Described from a single male specimen taken at Miami, Florida, October 27th, by Dr. C. H. T. Townsend, after whom the species is named.

Holotype: Cat. No. 20176 U.S. N. M.

Winthemia okefenokeensis, new species.

Length 8 mm. Black, gray pollinose. Front in male about three-fifths as wide as either eye, frontal vitta opaque brownish black, wider than either side of front. Frontal row of bristles descending to base of third antennal joint, outside of these scattered bristly black hairs. Parafrontals and sides of face silvery gray pollinose, the bristly hairs on lower half of parafacials irregularly disposed. Cheeks about one-fifth the eye height, palpi yellow. The third antennal joint faintly tinged with rufous at its base, about two and one-fourth times as long as the second.

Thorax black, golden gray pollinose, marked with four broad black vittae. Four postsutural and three sternopleural macrochaetae. Scutellum wholly black, bearing three pairs of long marginal macrochaetae and a shorter cruciate apical pair. Discal scutellar bristles present. Legs black, the hind tibiae ciliate with bristles of equal length, middle tibiae bearing a single bristle on the outer side near the middle. Front tarsi greatly dilated, the pulvilli longer than the last tarsal joint.

Sides of the first three abdominal segments and the fourth segment reddish yellow. Abdominal macrochaetae confined to a marginal row upon the third and fourth segments. Hairs of abdomen long, depressed. Venter of the third and fourth segments beset with a distinct patch of long bristly hairs, on either side of the median.

Base of wings and along the costa to the tip of the first longitudinal vein tinged with yellowish. Apical cell open, the third longitudinal vein bearing one or two bristles at its base.

Described from a single male specimen taken in June, 1912, on Billy's Island, in the Okeefenokee Swamp, Georgia, by Mr. J. Chester Bradley.

Holotype: Cat. No. 20054 U. S. N. M.

Amobia utahensis, new species.

Length 13 to 14 mm. Silvery gray pollinose species, head slightly wider than thorax, front at base of the antennae, as viewed from the

side, projects nearly four-fifths the horizontal diameter of the eye. Antennae black, not reaching below the middle of the face, the second and third joints of nearly equal length. Arista thickened on at least the basal two-fifths, the penultimate joint as broad as long. Frontal bristles not descending below the base of antennae, outside of these numerous bristly black hairs. Eyes bare, sides of front and the parafacials concolorous, densely silvery gray pollinose, the sides of face bearing many irregularly disposed bristly black hairs. Vibrissae inserted far above the level of the front edge of the oral margin, proboscis short, the palpi black. Genae a rich velvet reddish brown. Cheeks broad, well covered with bristly black hairs. Facial plate deeply concave, hardly wider than the sides of face.

Thorax densely gray pollinose, marked with three wide black dorsal vittae, either side of the wide median vitta an indistinct narrow vitta which gradually disappears just beyond the transverse suture. Post-sutural macrochaetae four, sternopleura bearing two strong bristles with many long bristly hairs between, several of which approximate the true macrochaetae. Scutellum bearing three pairs of strong marginal and several discal macrochaetae. Legs including the coxae black, the tarsal claws elongate.

Abdomen clongate conical, gray pollinose, marked with three rows of semi-triangular contiguous black spots. First and second abdominal segments bearing a median marginal pair of macrochaetae, the third a marginal row and the fourth a marginal row and sub-marginal pair.

Wings hyaline, the third longitudinal vein bearing two or three bristles at its base, calypteres milky white faintly tinted with yellow along the borders.

Described from a single male specimen taken in the Logan Canon, Utah, by Mr. E. P. Hoff. (The date of collection upon the locality label, pinned beneath the specimen is not plainly descernible, but is apparently July 4, 1909.)

Holotype: Cat. No. 20055 U. S. N. M.

Parkeriellus, new genus.

Genotype: Parkeriellus flavipalpis new species.

Head wider than the thorax, sides of face on the lower half bare, frontal bristles in a single row, descending to the base of the third antennal joint, frontal vitta opaque brownish black, not as wide as the sides of front. Ocellar bristles directed forward. Vibrissae cruciate, placed on a level with the front edge of the oral margin. Facial ridges bristly on the lowest fourth to one-third. Parafacials less than one-third as wide as the facial depression. Eyes bearing short scattered hairs, penultimate joint of arista as broad as long. Checks about one-fifth as wide as the eye height. Abdomen short conical, bearing discal and marginal macrochaetac. Ovi-

positor broad, nearly one-half as wide as its length, shining black, somewhat sickle shape. (This type of ovipositor is unique in character, and of a type not previously noted by the writer.) Wings hyaline, the apical cell ending in the costa but slightly before the extreme wing tip.

Parkeriellus flavipalpis, new species.

Length 7 mm. Front about one and one-fifth times as wide as either eye. Parafrontals gray pollinose; as viewed from above, faintly tinged a golden hue, sides of face, genae and facial depression silvery gray pollinose. Antennae black, extending nearly to the oral margin, the third joint two and one-half times as long as the second, arista thickened nearly to the middle. Palpi yellow. Two pairs of strong proclinate orbital bristles in the female, sides of front bearing a few weak scattered hairs outside of the frontal row.

Thorax and scutellum concolorous, dull bronzy gray pollinose, four indistinct black vittae, gradually disappearing toward the posterior margin. Three postsutural and three sternopleural macrochaetae. Scutellum bearing a discal pair, three pairs of long marginals and a shorter cruciate apical pair of macrochaetae. Legs black, the middle tibiae each bearing a single bristle on the outer side near the middle, hind tibiae sub-ciliate.

Abdominal segments except the first, grayish pollinose on the basal two-thirds, the first segment bearing a pair of median marginal macro-chaetae, the second a discal and marginal pair, the third a discal pair and a marginal row and the fourth segment a discal pair and a sub-marginal row. Hairs of abdomen depressed

Posterior end of the hind cross-vein ending nearer to the bend of the fourth longitudinal vein than to the small cross-vein, the third longitudinal vein bearing two or three bristles at its base.

Described from a female specimen taken at Laurel, Montana, August 9, 1914, by Dr. R. R. Parker, in honor of whom the generic name has been proposed.

Holotype: Cat. No. 20053 U. S. N. M.

Neodichocera tridens, Walton.

A male specimen of this species taken on the Gallatin Mountain, Montana, June 30, 1914, by Dr. Ralph R. Parker, thus adding a new locality record for this most interesting species, but recently described.

Paradmontia brevis Coq.

I also have two male specimens of this species which were taken at Laurel, Montana, July 9, 1914, by Dr. R. R. Parker.

Neophorichaeta johnsoni Smith.1

I am under obligations to Dr. C. H. T. Townsend in kindly calling my attention to the possible synonymy of the above species with that of *Tricogena setipennis* Coq.² Mr. W. R. Walton has graciously compared the paratype of N. johnsoni with Coquillett's holotype of setipennis and finds them identical. Coquillett had the female and the specimens from which N. johnsoni were described were the males. Thus, N. johnsoni becomes a synonym of Tricogena setipennis Coq.

Two Hundred and Ninety-Second Meeting, February 6, 1916.

The 292nd meeting of the Society was entertained by Dr. L. O. Howard at the Saengerbund Hall, February 3, 1916. There were present Messrs. Ainslie, C. N. Ainslie, C. G. Baker, Barber, Borden, Böving, Busck, Caudell, Craighead, Crawford, Cushman, DeGryse, Ely, Fink, Fisher, Gahan, Garner, Greene, Heinrick, Heidemann, Howard, Isely, Kewley, Knab, Kotinsky, Middleton, Paine, Pierce, Quaintance, Rohwer, Sanford, Schwarz, Shannon, Simanton, Snyder, Turner, Walton, Webb, and Wood, members, and H. A. Ingerson and T. D. Urbahns, visitors.

The following program was presented:

A new Interpretation of the Relationships of Temperature and Humidity to Insect Development. By W. Dwight Pierce.3

MORE LIGHT ON MYIOPHASIA.4

(Diptera, Tachinidae.)

By J. M. Aldrich.

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After reading with much interest the analysis of this group published in the September number of the Proceedings (vol. xvii, pp. 107-114), the thought occurred to me that it might be possible to get additional information about Wiedemann's Montevideo specimen, type of aenea and this species the type of Myiophasia. I accordingly addressed a letter to the well-known Vienna

¹ Psyche, vol. xxii, No. 3. ² Revis. Tach., p. 130.

³ Withdrawn for publication in Journ. Agr. Research.

⁴ Published by permission of Chief of Bureau.